# CD4 Monoclonal Antibody (RM4-5), Brilliant Violet ${ }^{\text {TM }}$ 650, eBioscience ${ }^{\text {TM }}$ 

| Product Details |  |
| :---: | :---: |
| Size | $25 \mu \mathrm{~g}$ |
| Species Reactivity | Mouse |
| Host/Isotype | Rat / IgG2a, kappa |
| Recommended Isotype Control | Rat IgG2a kappa Isotype Control (eBR2a), Brilliant Violet ${ }^{\text {TM }} 650$, eBioscience ${ }^{\text {TM }}$ |
| Class | Monoclonal |
| Type | Antibody |
| Clone | RM4-5 |
| Conjugate | Brilliant Violet ${ }^{\text {TM }} 650$ |
| Excitation/Emission Max | 407/646 nm |
| Form | Liquid |
| Concentration | $0.2 \mathrm{mg} / \mathrm{mL}$ |
| Purification | Affinity chromatography |
| Storage buffer | PBS, pH 7.2, with BSA |
| Contains | 0.09\% sodium azide |
| Storage conditions | $4^{\circ} \mathrm{C}$, store in dark, DO NOT FREEZE! |
| RRID | AB_2921040 |

## Applications

Flow Cytometry (Flow)

Tested Dilution
$0.25 \mu \mathrm{~g} / \mathrm{test}$

## Publications

## Product Specific Information

Description: The RM4-5 monoclonal antibody reacts with the mouse CD4 molecule, a 55 kDa cell surface receptor expressed by a majority of thymocytes, subpopulation of mature T cells and dendritic cells. CD4 binds to MHC class II on the surface of antigen presenting cells and plays an important role both in T cell development and in optimal functioning of mature T cells. In T cells, CD4 associates with protein tyrosine kinase p56lck through its cytoplasmic tail. Binding of RM4-5 is blocked by GK1.5.

Applications Reported: This RM4-5 antibody has been reported for use in flow cytometric analysis.
Applications Tested: This RM4-5 antibody has been tested by flow cytometric analysis of mouse splenocytes. This may be used at less than or equal to $0.25 \mu \mathrm{~g}$ per test. A test is defined as the amount $(\mu \mathrm{g})$ of antibody that will stain a cell sample in a final volume of $100 \mu \mathrm{~L}$. Cell number should be determined empirically but can range from $10^{\wedge} 5$ to $10^{\wedge} 8$ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Brilliant Violet ${ }^{\text {TM }} 650$ (BV650) is a tandem dye that emits at 649 nm and is intended for use on cytometers equipped with a violet ( 405 nm ) laser. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright, Brilliant Violet ${ }^{T M}$, Brilliant Ultra Violet ${ }^{T M}$, or other polymer dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright Complete Staining Buffer (Product \# SB-4401-42) or Brilliant Stain Buffer ${ }^{\text {TM }}$ (Product \# 00-4409-75) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer or Brilliant Stain Buffer for more information.

Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from
light.
Fixation: Samples can be stored in IC Fixation Buffer (Product \# 00-8222-49) (100 $\mu \mathrm{L}$ of cell sample $+100 \mu \mathrm{~L}$ of IC Fixation Buffer) or 1 -step Fix/Lyse Solution (Product \# 00-5333-54) for up to 3 days in the dark at $4^{\circ} \mathrm{C}$ with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone-specific performance should be determined empirically.

Our internal testing suggests that Brilliant Violet ${ }^{T M} 650$ (BV650) is not compatible with methanol-based fixation.
Excitation: 407 nm; Emission: 649 nm; Laser: Violet Laser.
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## Product Images For CD4 Monoclonal Antibody (RM4-5), Brilliant Violet ${ }^{\text {TM }}$ 650, eBioscience ${ }^{\text {TM }}$



CD3e FITC


CD3e FITC

CD4 Antibody (416-0042-80) in Flow
C57BL/6 mouse splenocytes were stained with CD3e Monoclonal Antibody, FITC (Product \# 11-0031-82) and $0.125 \mu \mathrm{~g}$ of Rat IgG2a kappa Isotype Control, Brilliant Violet 650 (Product \# 416-4321-81) (left) or $0.125 \mu \mathrm{~g}$ of CD4 Monoclonal Antibody, Brilliant Violet 650 (right). Viable cells in the lymphocyte gate were used for analysis, as determined by 7-AAD (Product \# 00-6993-50).

